

manufacture
Shenzhen Yunding Communication Electronics Co., LTD

TEL: +86 0755-23073599

FAX: +86 0755-23097189

E-mail:wht0809@163.com

承認書
APPROVAL SHEET

客 户
:

品 名 规 格 2.4G-2DB black rubber rod output -1.13 black - Exposed
DESCRIPTION: L450MM-Open

料 号
PART NO.:

客 户 料 号
CUS PART NO.:

日 期
D A T E: 2025-5-19

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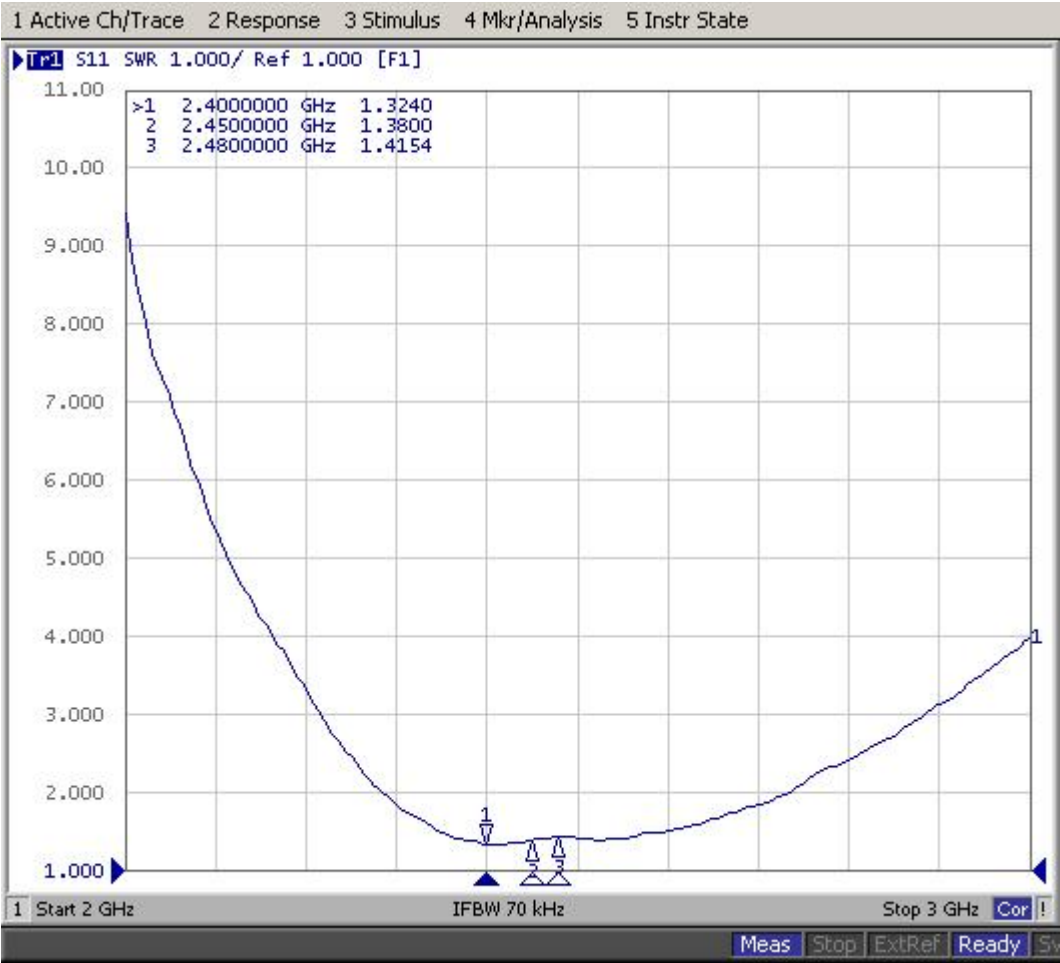
E-mail:wht0809@163.com

1. Test items and equipment

	测试项目 Test items	设备 Equipment
1. S11 参数 (S-parameter)	1. 回波损耗 (Return Loss) 2. 电压驻波比 (VSWR)	Network analyzer: Agilent E5071B HP 8753D
2. 有源测试 (Active)	1. 发射功率 (TRP) 2. 接收灵敏度 (TIS)	1. Darkroom: ETS 7x4x3 m (3D) Chamber ETS 5x3x3 m (3D) Chamber 2. Comprehensive tester: Agilent 8960 E5515B ×2 StarPoint SP6011 Cmw500
3. 无源测试 (Passive)	1. 天线增益 (Gain) 2. 天线效率 (Efficiency)	1. Dark room: ETS 7x4x3 m (3D) Chamber ETS 5x3x3 m (3D) Chamber 2. Network analyzer: Agilent E5071B HP 8753D



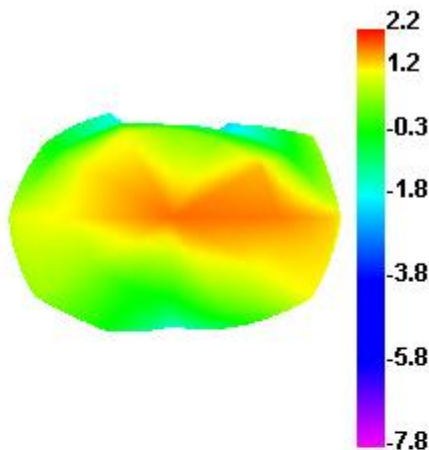
2. Antenna performance SWR



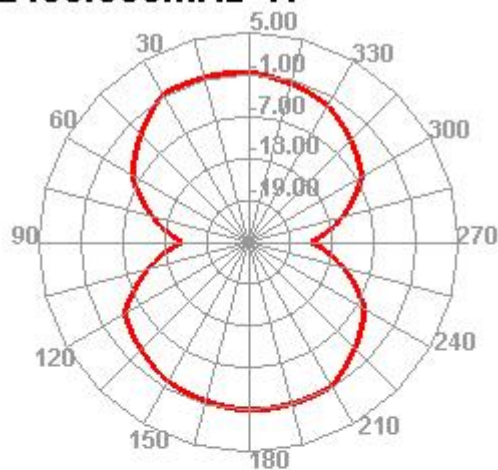
3. Antenna efficiency and gain

Passive Test For WIFI2.4		
Freq (MHz)	Effi (%)	Gain (dBi)
2400	71.37	2.23
2410	69.52	2.33
2420	66.39	2.04
2430	65.35	1.83
2440	68.57	1.85
2450	72	1.9
2460	73.97	1.95
2470	74.82	2.07
2480	75.82	2.17
2490	77.08	2.31
2500	75.18	2.36

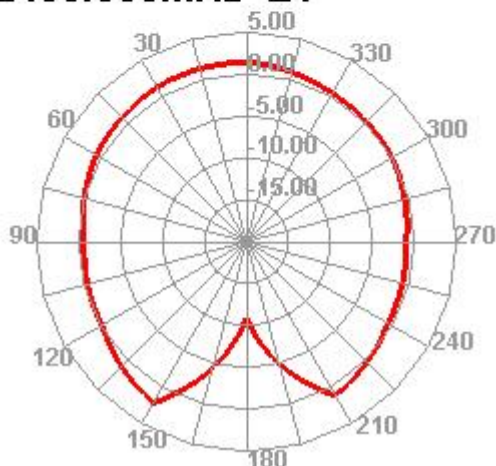
2400.000MHz



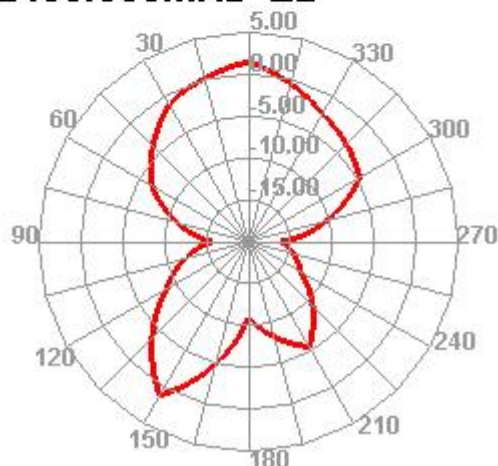
2400.000MHz H



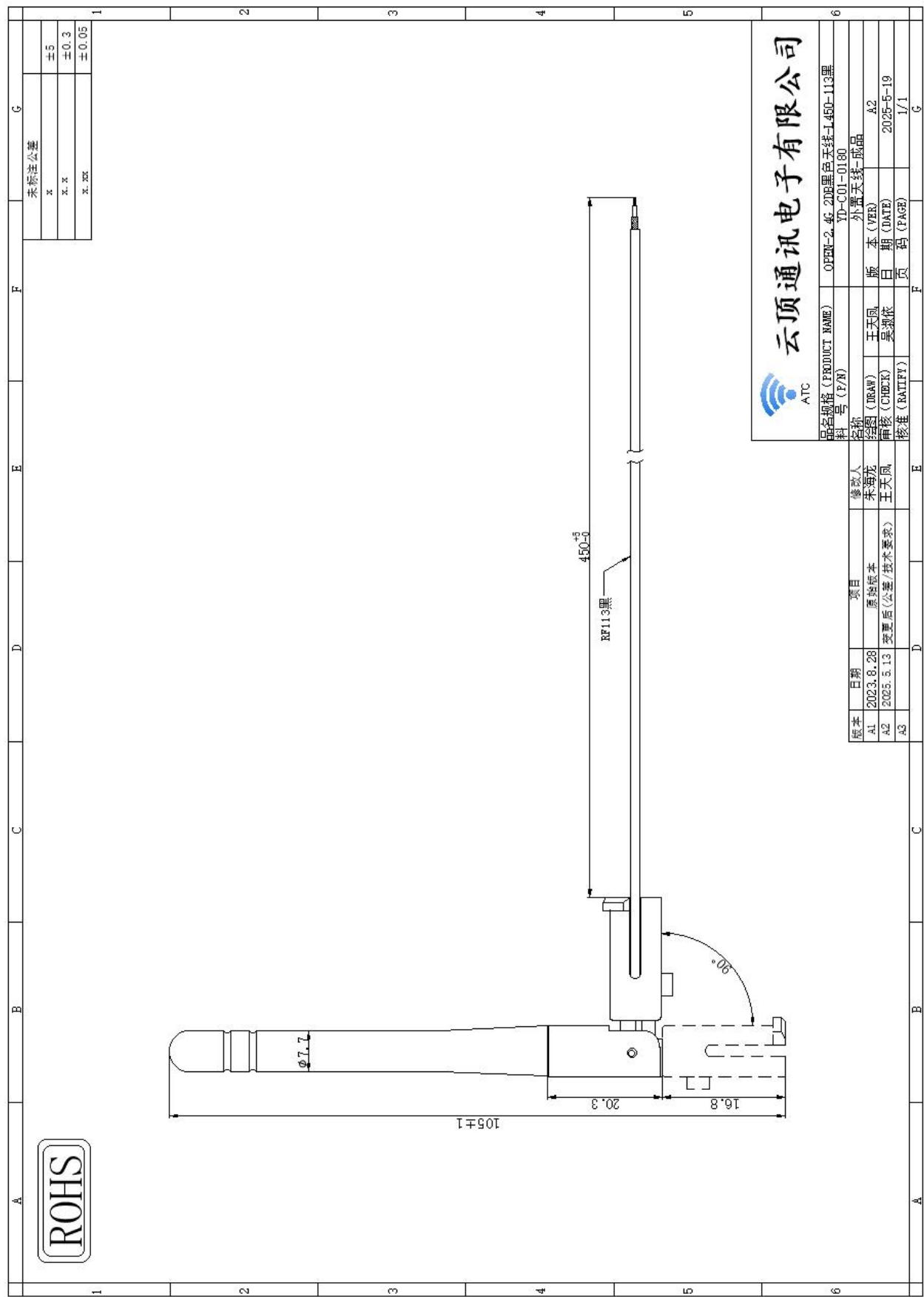
2400.000MHz E1



2400.000MHz E2



4. Antenna structure diagram:



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Electrical technical parameters			
电 性 能 指 标		Electrical Specifications	
频率范围	2400~2500MHz	Frequency Range	2400~2500MHz
电压驻波比	≤2.0	VSWR	≤2.0
输入阻抗	50 Ω	Input Impedance	50 Ω
增益	2.36 dBi	Gain	2.36 dBi
机 械 指 标		Mechanical Specifications	
天线颜色	黑色	Antenna color	Black
接口形式	SMA	Input connector	SMA
天线长度	105mm	Antenna length	105mm
线材长度	450mm	Cable length	450mm
工作温度	-40℃~+85℃	Working Temperature	-40℃~+85℃
工作湿度	20~80%	Working Humidity	20~80%